

IT Security

Application Security & SDLC

by Philipp Bandow

original slides by Bjoern Kimminich

Curriculum 2nd Semester

1. [Open Web Application Security Project \(OWASP\)](#)
2. [Injection](#)
3. [XSS](#)
4. [Authentication Flaws](#)
5. [Authorization Flaws](#)
6. [Cryptographic Failures](#)
7. [Insecure Dependencies & Configuration](#)
8. [Software & Data Integrity Failures](#)
9. [Secure Development Lifecycle](#)

Schedule

- Tuesdays, 13:30 - 17:15
- Tuesdays, 13:30 - 17:00 starting from 12.09.23
- 6 lectures (08.08. - 26.09.22)
- No lectures on 15.08.23 and 22.08.23
- Mostly on-site in Room F008, some lectures may be remote via Zoom


Exam


- 09.10.2023 (90min)
- 11:30 - 13:00 / Audimax
- ⚠ Covers topics from both semesters
- ❌ Adjourning the exam is discouraged

System Requirements

To perform the exercises on your private computer you need

- either [Node.js](#) (18.x, 16.x or 14.x)
- or [Docker](#)


 *On the university computers Node.js should already be available. You can verify this by running `node -v` on the command line. It should display a 14.x (or higher) version.*

 *You can always fall back to your personal laptop for the exercises as it should be free from virtualization, proxying or installation hurdles!*

Recommended Resources

- OWASP: [OWASP Top 10 - 2021](#)
- OWASP: [OWASP Cheat Sheet Series](#)

Literature Recommendations (*optional*)

- Kimminich: [Pwning OWASP Juice Shop](#), 2022
- Stuttard, Pinto: The Web Application Hacker's Handbook 2, 2011
- Zalewski: The Tangled Web: A Guide to Securing Modern Web Applications, 2011
- Zalewski, Heiderich: Tangled Web - Der Security-Leitfaden für Webentwickler, 2012
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Awesome Web Security

Curated list of Web Security materials and resources.

<https://github.com/qazbnm456/awesome-web-security>

